



# **G5-SE Mocapsuit**

*Sports Edition*

**AiQ.  Synertial**

# G5-SE Mocapsuit *Sports Edition*

Especially designed for sports sciences

**Robust** tried and tested OS

**Amazing** low-energy almost invisible electronics

**Accuracy** through sensors, smart clothing and

SW tools for easy skeleton file creation

**Use Android** for data collection

**Use PC** to cut the data into desired

sequences for export or analysis

**Use PC** to render sequences into

2D video for export and share online

**SDK** with sample code 



# Ultimate Sports Analysis

## sports capture data

**Full Body Suit** arms and legs 3 each, head, ribcage, pelvis, R&L clavicles, 17 in all

**2nd Skin Cloth** comfortable, crease-free, designed to leave on for hours

**Tiny low-energy** sensors, WiFi Bluetooth Hub, tiny batteries last 2+ hours

**Android** device to manage local data collection at 180 fps w/ PC download tools

PC SW tools to **crop & collate downloads** into smaller files for analysis or export

PC SW tools to **create or edit user skeleton map** for accurate data

PC SW tools to **Visualize Biomechanical Dynamics** for analysis

PC SW tools to **render customized 2D video Exports** from the 3D data

**Change Avatars & motions** at will for Export

**HTC-Vive** ready integrate Vive for no-drift sessions



# Super flexible 2nd Skin

- Super-stretchy material ideal for intensive exercise
- Up to 24 built-in fast-tracking sensors
- Size options for best fit
- Low profile / skin tight 



# System specification:

## Power

Power supply  
Battery capacity:  
System operation voltage  
System power consumption  
Operation time

External 3.3~5V  
Based on customers' choice  
3.3V  
Total 24 sensor ~1.8W  
2+hrs with factory battery

## Data transmission

Bluetooth  
Wi-Fi  
Cable  
Max Capture rate  
SD Storage

5.0, up to 2Mbps (24 sensors, 60fps)  
2.4G, 802.11 b/g/n, up to 65Mbps.  
For onboard memory card PC download only  
180 fps on memory card, 60fps for Wi-Fi/Bluetooth  
2+ Days

## Software

Android  
PC Analysis  
PC Media Export  
PC Plugins  
PC Export Formats

SynDash app  
SynDash Graphs & Editor, AutoCal Skeleton  
SynDash Video Export Suite  
Unity, UE4, MoBu Plugins  
BVH, FBX, CSV positionals

## Fingers

Optional Pincer sensors for thumb/index/middle

## Sizes

2nd Skin Stretch suit (pants, long-sleeves) XL, L, M, S, XS  
Semi Adjustable Stretch suit (2-piece) L, M  
Main Hub/BT Dimensions Ø35mm x 8.7mm  
Snap-on WiFi dongle Dimensions Ø33mm x 11.3mm

## Certification

Bluetooth  
Wi-Fi  
CE, FCC  
FCC, IC, TELEC, RED



# Sensor specification:

## Power & Range:

Supply voltage	3.3~5V
Current consumption	18mA, 2+ hrs with supplied batteries
Accelerometer range	+/- 8g
Gyroscope range	~2000 °/s

## Number of sensors per suit:

Full Body/Palms only	15 + 2 sensors (G5-SE 17)
Full Body Suit with pincers	15 + 8 sensors (G5-SE 23)

## Raw Data Rates:

Gyro rotation Vector	1000 times/sec
Rotation Vector	400 times/sec
Gravity00 times/sec	400 times/sec
Linear Acceleration	400 times/sec
Accelerometer	500 times/sec
Gyroscope	400 times/sec
Magnetometer	100 times/sec





# AiQ Synertial

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